



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/777,342

02/12/2004

Frederic Nefel

B0884.70074US01

4933

7590

09/06/2006

Lawrence Green  
Wolf, Greenfield & Sacks, P.C.  
600 Atlantic Avenue  
Boston, MA 02210

EXAMINER

GRAY, PHILLIP A

ART UNIT

PAPER NUMBER

3767

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/777,342	<b>Applicant(s)</b> NEFTEL, FREDERIC	
	<b>Examiner</b> Phillip Gray	<b>Art Unit</b> 3767	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/12/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This office action is in response to applicant's communication of 6/13/2006.  
Currently amended and newly added claims 1-24 are pending and stand rejected below.

#### ***Response to Arguments***

Applicant's arguments filed 6/13/2006 have been fully considered but they are not persuasive.

The prior art of record anticipated the pending claims as written because all claim limitations were met and the interpretation of the prior art satisfied all functional, structural, operational and spatial, claim limitations.

It is examiner's position that the prior art of record does satisfy and anticipate the claims as amended. Namely the amended limitation of the "pressure difference between the intermediate pressure and the downstream pressure prevents the upstream flow of liquid after the injection has stopped" would be inherent in the prior art as a functional procedure that occurs as a natural result of the taught operation. The claims as written do not preclude the mechanical regulation of the system as taught in the prior art of record, from anticipating them, and capable of their claimed operation. Although not the only concern by the examiner, but the "transient pressure difference" as stated in the applicant's arguments would still anticipate the claims as amended currently. The differences advanced by the applicant's representative, between the instant invention and the prior art of record are not shown in the language of the "pressure difference between the intermediate pressure and the downstream pressure

Art Unit: 3767

prevents the upstream flow of liquid after the injection has stopped". The transient pressure as discussed in the applicant's argument would exist even when the injection was stopped.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., non-mechanical pressure control/regulation) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-19, and 21-24, are rejected under 35 U.S.C. 102(b) as being anticipated by Hellman et al. (U.S. Patent Number 5,569,181). Hellman discloses a sterility assurance for a contrast delivery system. Hellman patent discloses a process and apparatus for injection of a multiple number of patients with fluid by selective valving devices and disposable dosing units. Hellman further discloses a method of injecting liquid through a length of tubing with multiple occlusion systems and regulation

Art Unit: 3767

systems with varying pressures, closing the valved systems at various junctions will stop injection to a patient, the measurement of pressure and providing an output indicative of leakage, and maintaining intermediate pressure through a peristaltic cassette pump, syringe pump, or a gear pump. The method system does include a non-return or one-way valve. (see paragraphs beginning from column 3, line 59 to column 7, line 39). Concerning the amended limitation of the "pressure difference between the intermediate pressure and the downstream pressure prevents the upstream flow of liquid after the injection has stopped" would be inherent in the prior art as a functional procedure that occurs as a natural result of the taught operation.

Claims 1-7, 10-13, and 15-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Lichtenstein (U.S. Patent Number 4,464,172). Lichtenstein discloses a computer controlled medical care system for use in the treatment and diagnosis of patients, which provides for either automatic or manual control of a wide variety of medical procedures. Lichtenstein discloses a system of tubing and valves for infusion to a patient, which contains a wide variety of sensors. The system may include one or more sensors for determining pressure and rate of fluid flow within ducts and chambers in the module. Also included may be sensors for invasive or noninvasive determination of intravascular pressures within a patient connected with a module and arrangements for gravity flow or pumped flow of fluid between a module and a patient or within the module. The Lichtenstein includes an intermediate segment of tubing with one way valves and various pumps that are monitored and controlled to regulate the pressure and fluid flow to a patient. (see paragraphs beginning at column 7 line 53, to column 12

line 54). Concerning the amended limitation of the "pressure difference between the intermediate pressure and the downstream pressure prevents the upstream flow of liquid after the injection has stopped" would be inherent in the prior art as a functional procedure that occurs as a natural result of the taught operation.

Claims 1-7, 9-13, and 15-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Teirstein (U.S. Patent Number 5,533,978). Teirstein discloses a method and apparatus for uninterrupted delivery of radiographic dye with a syringe manifold. It includes a regulation system for an intermediate section of tubing with a one-way valve. Further Teirstein discloses an air alarm for response to an output of leakage from the intermediate segment, maintenance of pressure in the intermediate section by pumps. Further Teirstein discloses that injection can be stopped by closing the upstream valving systems and that the pressure in the intermediate section can be monitored (See paragraphs at column 2, line 20 to column 4 line 34, or paragraphs beginning with column 6 line 45, to column 7 line 50). Concerning the amended limitation of the "pressure difference between the intermediate pressure and the downstream pressure prevents the upstream flow of liquid after the injection has stopped" would be inherent in the prior art as a functional procedure that occurs as a natural result of the taught operation.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 3767

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip Gray whose telephone number is (571) 272-7180. The examiner can normally be reached on Monday through Friday, 8:30 a.m. to 4:30 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Sirmons can be reached on (571) 272-4965. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3767

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*PAG*  
PAG

KEVIN C. SIRMONS  
SUPERVISORY PATENT EXAMINER

*Kevin C. Sirmons*